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10/034,367	12/27/2001	Fabio R. Maino	ANDIP004	8712

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EXAMINER
TESLOVICH, TAMARA

ART UNIT	PAPER NUMBER
2137	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/034,367	MAINO ET AL.
	Examiner	**Art Unit**	
	Tamara Teslovich	2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>16 January 2008</u>.

2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-50</u> is/are pending in the application.

     4a) Of the above claim(s) <u>1-25</u> is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>26-50</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a) ☐ All   b) ☐ Some * c) ☐ None of:

       1. ☐ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____.

       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date <u>01.16.08</u>.

4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

DETAILED ACTION

This Office Action is in response to Applicant's Remarks and Amendments filed

January 16, 2008.

Claims 1-25 remain withdrawn.

Claim 26 is amended.

Claims 26-50 are pending and herein considered.

Response to Arguments

Applicant's arguments filed January 16, 2008 have been fully considered but they

are not persuasive.

In response to Applicant's arguments concerning Hawe's alleged failure to

describe "receiving a frame at a first network entity from the second network entity in a

fibre channel network" and "identifying a security control indicator in the frame from the

second network entity, wherein the security control indicator is used to determine if the

frame is encrypted or authenticated" the Examiner respectfully disagrees. Applicant's

arguments fail to comply with 37 CFR 1.111(b) because they amount to a general

allegation that the claims define a patentable invention without specifically pointing out

how the language of the claims patentably distinguishes them from the references.

Insofar as Applicant's citations to Hawe, in their entirety, fail to accurately reflect

sections within Hawe, the Examiner is unable to find support for Applicant's remarks

concerning Hawe's "teaching away from the techniques and mechanisms of the present

invention" and as such, maintains her previously set forth rejection.

In response to Applicant's arguments concerning Brewer's alleged failure to describe "any security association database" the Examiner has not considered such arguments insofar as they are not directed towards a reference currently being utilized by the Examiner in her rejection. Insofar as the Examiner is not relying upon Brewer in any way in her rejection, Applicant's remarks are moot and will not be considered further.

It is based upon the above made arguments in view of the prosecution history in its entirety that the Examiner maintains her 35 U.S.C. 103 rejection of claims 26-50 as unpatentable over United States Patent No. 5,070,528 to Hawe at al. and further in view of US Patent No. 6,973,568 B2 to Hagerman.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 26-50 remain rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 5,070,528 to Hawe at al. and further in view of US Patent No. 6,973,568 B2 to Hagerman.

As per **claim 26**, Hawe teaches a method for processing frames in a fibre channel network having a first network entity and a second network entity, the method comprising:

receiving a frame at the first network entity from the second network entity in a fibre channel network (col.8 lines 24-51);

identifying a security control indicator in the frame from the second network entity, wherein the security control indicator is used to determine if the frame is encrypted (col.6 lines 36-54);

decrypting the first portion of the frame (col.16 lines 1-14).

Hawe fails to teach determining that a security association identifier associated with the frame corresponds to an entry in a security database and decrypting the first portion of the frame by using algorithm information contained in the entry in the security database. Hawe also fails to provide for authentication of any type.

Hagerman teaches a secure fibre channel communication network utilizing security association identifiers associated with frames which correspond to an entry in a security database (col.3 lines 43-47; col.7 lines 11-34) and decrypting the first portion of the frame by using algorithm information contained in the entry in the security database (col.7 lines 11-34). Hagerman goes on to teach the use of authentication within his system to provide for additional security (Abstract, col.3 lines 23-42).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include within Hawe the authentication, security database, and

decryption utilizing the security database as described in Hagerman to provide

increased levels of security and overall scalability.

As per **claim 27**, the combined method of Hawe and Hagerman teaches wherein

the entry in the security database was created after a fibre channel network

authentication sequence between the first and second network entities (Hagerman col.7

lines 1-10).

As per **claim 28**, the combined method of Hawe and Hagerman teaches wherein

the first portion is decrypted using a key contained in the entry in the security database

(Hagerman col.3 lines 43-53).

As per **claim 29**, the combined method of Hawe and Hagerman teaches wherein

the first portion is encrypted using DES, 3DES or AES (Hagerman col.7 lines 1-10).

As per **claim 30**, the combined method of Hawe and Hagerman teaches

recognizing that a second portion of the frame supports authentication; using algorithm

information contained in the entry in the security database to authenticate the second

portion of the frame (Hagerman col.5 lines 15-41).

As per **claim 31**, the combined method of Hawe and Hagerman teaches wherein the second portion is authenticated using MD5 or SHA1 (Hagerman col.3 lines 34-42; col.7 lines 35-44).

As per **claim 32**, the combined method of Hawe and Hagerman teaches wherein the authentication sequence is a fibre channel login sequence between the first and second network entities (Hagerman col.3 lines 34-47).

As per **claim 33,** the combined method of Hawe and Hagerman teaches wherein the login sequence is a PLOGI or FLOGI sequence (Hagerman col.6 lines 6-13).

As per **claim 34**, the combined method of Hawe and Hagerman teaches wherein the first and second network entities are domain controllers and the authentication sequence is a FC-CT sequence (Hagerman col.1 lines 28-40).

As per **claim 35**, the combined method of Hawe and Hagerman teaches wherein the first and second network entities are domain controllers and the authentication sequence is a SW-TL sequence (Hagerman col.6 lines 6-14).

As per **claim 36**, Hawe teaches a method for transmitting encrypted frames in a fibre channel network having a first network entity and a second network entity, the method comprising: identifying a fibre channel frame having a source corresponding to

the first network entity and a destination corresponding to the second network entity

(col.8 lines 24-51); providing a security control indicator in the fibre channel frame,

wherein the security control indicator is use to determine if the frame is encrypted and

authenticated (col.6 lines 36-54); transmitting the fibre channel frame to the second

network entity (col.8 lines 24-51).

Hawe fails to teach determining that a security association identifier associated

with the frame corresponds to an entry in a security database and encrypting the first

portion of the frame by using algorithm information contained in the entry in the security

database. Hawe also fails to provide for authentication of any type.

Hagerman teaches a secure fibre channel communication network utilizing

security association identifiers associated with frames which correspond to an entry in a

security database (col.3 lines 43-47; col.7 lines 11-34) and encrypting the first portion of

the frame by using algorithm information contained in the entry in the security database

(col.7 lines 11-34). Hagerman goes on to teach the use of authentication within his

system to provide for additional security (Abstract, col.3 lines 23-42).

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to include within Hawe the authentication, security database, and

encryption utilizing the security database as described in Hagerman to provide

increased levels of security and overall scalability.

As per **claim 37**, the combined method of Hawe and Hagerman teaches wherein

the entry in the security database was created after a fibre channel network

authentication sequence between the first and second network entities (Hagerman col.7 lines 1-10).

As per **claim 38**, the combined method of Hawe and Hagerman teaches wherein the payload is encapsulated using the Authentication Header protocol or the Encapsulating Security Payload protocol (Hagerman col.7 lines 1-10).

As per **claim 39**, the combined method of Hawe and Hagerman teaches adding security information to the header of the fibre channel frame (Hagerman col.3 lines 23-33).

As per **claim 40**, the combined method of Hawe and Hagerman teaches wherein a first portion of the fibre channel frame is encrypted using DES, 3DES, or AES (Hagerman col.7 lines 1-10).

As per **claim 41**, the combined method of Hawe and Hagerman teaches wherein parameters in the header are normalized prior to encrypting the first portion of the fibre channel frame (Hagerman col.3 lines 48-53).

As per **claim 42**, the combined method of Hawe and Hagerman teaches wherein the payload is padded prior to encrypting the first portion of the fibre channel frame (Hagerman col.5 lines 3-25).

As per **claim 43**, Hagerman teaches computing authentication data using key and algorithm information as well as a second portion of the fibre channel frame (Hagerman col.5 lines 15-25).

As per **claim 44**, the combined method of Hawe and Hagerman teaches wherein authentication data is computed using MD5 or SHA1 (Hagerman col.3 lines 34-42; col.7 lines 35-44).

As per **claim 45,** the combined method of Hawe and Hagerman teaches wherein the authentication sequence is a fibre channel login sequence between the first and second network entities (Hagerman col.3 lines 34-47).

As per **claim 46,** the combined method of Hawe and Hagerman teaches wherein the login sequence is a PLOGI or FLOGI sequence (Hagerman col.6 lines 6-13).

As per **claim 47**, the combined method of Hawe and Hagerman teaches wherein the first and second network entities are domain controllers and the authentication sequence is a FC-CT sequence or an SW-ILS message (Hagerman col.1 lines 28-40; col.6 lines 6-14).

Claim 48 corresponds to an apparatus employing the method described in claim

36 and is rejected accordingly.

Claim 49 corresponds to an apparatus employing the method described in claim

37 and is rejected accordingly.

As per **claim 50**, Hawe teaches an apparatus for receiving encrypted frames in a

fibre channel network having a first network entity and a second network entity, the

apparatus comprising: means for identifying that the frame has been encrypted and

authenticated (col.6 lines 36-54); means to decrypt the eventually encrypted frame

(col.16 lines 1-14);

Hawe fails to teach means to lookup the security parameters in a security

database that allows de-encapsulation of the frame and means to verify that the

message has been sent by the sender, and that has not been tampered with during its

transmission.

Hagerman teaches a secure fibre channel communication network utilizing

security association identifiers associated with frames which correspond to an entry in a

security database (col.3 lines 43-47; col.7 lines 11-34) and decrypting the first portion of

the frame by using algorithm information contained in the entry in the security database

(col.7 lines 11-34). Hagerman goes on to teach the use of authentication in order to

verify that messages have been sent by the sender, and that they have not been

tampered with during transmission (Abstract, col.3 lines 23-42).

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to include within Hawe the authentication, security database, and

decryption utilizing the security database as described in Hagerman to provide

increased levels of security and overall scalability.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Tamara Teslovich whose telephone number is

(571)272-4241. The examiner can normally be reached on Mon-Fri 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tamara Teslovich/
Examiner, Art Unit 2137

/Emmanuel L. Moise/
Supervisory Patent Examiner, Art Unit 2137